

BEST AVAILABLE COPY

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/591,451
Source: IFWP
Date Processed by STIC: 9/18/06

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 09/18/2006

PATENT APPLICATION: US/10/591,451

TIME: 15:48:54

Input Set : E:\89403834.txt

Output Set: N:\CRF4\09182006\J591451.raw

```

3 <110> APPLICANT: FIVE PRIME THERAPEUTICS, INC.
5 <120> TITLE OF INVENTION: NOVEL HUMAN cDNA CLONES AND METHODS OF THEIR USE
7 <130> FILE REFERENCE: 8940.0038-00304
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/591,451
C--> 10 <141> CURRENT FILING DATE: 2006-09-01
12 <150> PRIOR APPLICATION NUMBER: 60/548,191
13 <151> PRIOR FILING DATE: 2004-03-01
15 <160> NUMBER OF SEQ ID NOS: 486
17 <170> SOFTWARE: PatentIn version 3.3
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 270
21 <212> TYPE: DNA
22 <213> ORGANISM: Homo sapiens
24 <400> SEQUENCE: 1
25 atgcatgtgc atgttcattg cagcactatt cacaacagca aagacataga ctcaacccaa      60
27 atgcccacatca atgatgcatt ggatgaagaa aatatggtat atttacacca tggaataacta      120
29 tgcagccgta aaaggggaaca agataatggt ctttgcaagg acgtgggtgg agctggaagc      180
31 cattatcctc agcaaaactaa cacaggaaca gaaaacccaaa caccacatgt tctcacttat      240
33 aagtgggagc ccaacaatga gaacacatag                                     270
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 264
38 <212> TYPE: DNA
39 <213> ORGANISM: Homo sapiens
41 <400> SEQUENCE: 2
42 atgatgcatt ggatgaagaa aatatggtat atttacacca tggaataacta tgcagccgta      60
44 aaaggggaaca agataatggt ctttgcaagg acgtgggtgg agctggaagc cattatcctc      120
46 agcaaaactaa cacaggaaca gaaaacccaaa caccacatgt tctcacttat aagtgggagc      180
48 ccaacaatga gaacacatag acacagggag gggaacaaca cacacttggg tctgtcatgg      240
50 ggggtggaggg agggagagca ttag                                     264
53 <210> SEQ ID NO: 3
54 <211> LENGTH: 249
55 <212> TYPE: DNA
56 <213> ORGANISM: Homo sapiens
58 <400> SEQUENCE: 3
59 atgaggtttc caatttctct gcacccctcat caaaacttgt tattatctgt cttttttatt      60
61 ttagacgttc tagaaggtgt ggagtgggtat ctcatgttgg tattgatttg catttcctta      120
63 aggactaatg cttttgaaca ttttttcatg tgcttattgg ccatttgtat atcttctctg      180
65 gagaaatgtt tattcaaact ctttgtccat tttttaattg gattgtcttt ttattgttgc      240
67 atggtataa                                     249
70 <210> SEQ ID NO: 4
71 <211> LENGTH: 186
72 <212> TYPE: DNA
73 <213> ORGANISM: Homo sapiens

```

RAW SEQUENCE LISTING

DATE: 09/18/2006

PATENT APPLICATION: US/10/591,451

TIME: 15:48:54

Input Set : E:\89403834.txt

Output Set: N:\CRF4\09182006\J591451.raw

```

75 <400> SEQUENCE: 4
76 atgtttattc aaatcctttg tccatttttt aattggattg tctttttatt gttgcatggt      60
78 ataagttctc tatatatctt ggacacaagt ctcttattag ttataccatt tgcaaatatt      120
80 ttctcccatc ctgtgcgttg tcttttaacc tttctaagt gtccattgaa acacaaaagt      180
82 ttttaa                                     186
85 <210> SEQ ID NO: 5
86 <211> LENGTH: 201
87 <212> TYPE: DNA
88 <213> ORGANISM: Homo sapiens
90 <400> SEQUENCE: 5
91 atgggagaca gcctcttact tgccaagaaa atgaaaggat tggaccgagc tggaaaacct      60
93 cctttaccag atgtgactg gcaactggtg tttttgctct cgacagtatc cacaatagct      120
95 gacggctggg tgtttcagtt tgaaaatatt ttgtgcctt catcttcact gcaattttgt      180
97 gtaaatttct caaagatctg a                                     201
100 <210> SEQ ID NO: 6
101 <211> LENGTH: 165
102 <212> TYPE: DNA
103 <213> ORGANISM: Homo sapiens
105 <400> SEQUENCE: 6
106 atgacttacc ttgaaatctt tattcaaagg atatactatt caatttttca gtgtgccact      60
108 gccaccactg catgtttttg gtcagagtgc agtgcaacta acatcgccat cctgctagga      120
110 aaaagatctg caggttgctg gatagtggaa gttgcacaca tctaa                                     165
113 <210> SEQ ID NO: 7
114 <211> LENGTH: 255
115 <212> TYPE: DNA
116 <213> ORGANISM: Homo sapiens
118 <400> SEQUENCE: 7
119 atgcaagtac attttgagtg taacaaagcc cacaaatctt ttcctgattt tgtttacatg      60
121 acctgaatt tattgagtga tgagagctct gtcagaatca gatttcagag ctccttggcc      120
123 caagccagga agtgggcatg catgactgac caagcccaga gtggcaggag gccaacctgc      180
125 tgtgtcttat cttgtcttcc catagctcaa gaggacaaga gcagtgttct aggagaagcc      240
127 aaattatttt cctaa                                     255
130 <210> SEQ ID NO: 8
131 <211> LENGTH: 222
132 <212> TYPE: DNA
133 <213> ORGANISM: Homo sapiens
135 <400> SEQUENCE: 8
136 atggagtctc actctgttgc ccaggctgga gtgcagtggg gtgatcttgg ctcagcgcaa      60
138 gctctgcctc ctgggttcac accattctcc cacctcagcc tcctgagtag ccgggaccac      120
140 aggcgcccgc cactacacc agctaatttt gtttttgat ttttagtgga gacgggtttt      180
142 cactgtgtta gccaggatgg tctcaatctc ctggcctcgt ga                                     222
145 <210> SEQ ID NO: 9
146 <211> LENGTH: 483
147 <212> TYPE: DNA
148 <213> ORGANISM: Homo sapiens
150 <400> SEQUENCE: 9
151 atgaggatcc ctgagttggg gcagagaaag caggcaggga gaaaaatggg gacctgcggc      60
153 gctgggggcc cagctggtgg agatctccag ctaggagatc cccagcacag cacttgccct      120
155 gccctctgtc ttgttcaggg atgtaacctg cctctcctg cttctccgcg gcacctcagg      180

```

RAW SEQUENCE LISTING

DATE: 09/18/2006

PATENT APPLICATION: US/10/591,451

TIME: 15:48:54

Input Set : E:\89403834.txt

Output Set: N:\CRF4\09182006\J591451.raw

```

157 gcaccgcctg gggaggggtct tgtagtgcac actcagcatc tctgttccct ggagcgcattg 240
159 ggggtgtgaaa cgctgatgc cagccagctc cccagtcttg agaggctggg tgaatggcac 300
161 atctccctag gaggtccct cccaggggtc cctctgccc ctgctgtcca tgcagtcggg 360
163 cctcaccctg caggaaaacg tagcctgctt gcctgggtgg ttttcccat caggaaactgc 420
165 caggtactgg gcctggatgg gcttgaattc cccatctcag tgggagaagg gggcattgtt 480
167 tag 483
170 <210> SEQ ID NO: 10
171 <211> LENGTH: 327
172 <212> TYPE: DNA
173 <213> ORGANISM: Homo sapiens
175 <400> SEQUENCE: 10
176 atgggtcctg cgttggcgcg gggggacccc tcgtttcgtc ctggcctaag cagcccctgg 60
178 ggtcccgcg cgcgcaagag cgccagactt cctaacctgg gccataccct gtccgctcca 120
180 cttcccagtc caagaaggaa cagccgaagc ccaggacgcc aaggacctgg ctcgaagtct 180
182 ccagaattcc cgccagagct gggctgggct cgcggaccgc tcatgcgccg tctcccagga 240
184 gcctccccc agcccagttt aatagccggc cctgaccagt ccaggggaga gagaccgtgc 300
186 agcctccag cagaccgtga cctctga 327
189 <210> SEQ ID NO: 11
190 <211> LENGTH: 240
191 <212> TYPE: DNA
192 <213> ORGANISM: Homo sapiens
194 <400> SEQUENCE: 11
195 atgaggtcaa acctaataac agatatatta cactctaaca gatacattac attgtatagt 60
197 agaattctca gacagcaacc ttataagggtg atagatgcag aaacaggccc aaagagtaaa 120
199 aataatttgt tcagagtttt ccagccaagt ggcgaagggtg agattcttac ctgggtttgt 180
201 ctgaaaccaa ttttactat ctttttcagt tatgatacac tgcctattac gaatgaatga 240
204 <210> SEQ ID NO: 12
205 <211> LENGTH: 207
206 <212> TYPE: DNA
207 <213> ORGANISM: Homo sapiens
209 <400> SEQUENCE: 12
210 atggccccc cgcgcgctcc gtctctcttg gccgtcaggg cctcaagccc cgccgcgaca 60
212 cccacctcgt acggcgctct ctgcaagggg ctctcccgca ccctgctcgc cttcttcgag 120
214 ctggcctggc agctgcgcat gaacttccc tacttctacg tcgcgggctc ggtgatcctc 180
216 aacatccgat tgcaggtaca tatttag 207
219 <210> SEQ ID NO: 13
220 <211> LENGTH: 167
221 <212> TYPE: DNA
222 <213> ORGANISM: Homo sapiens
224 <400> SEQUENCE: 13
225 atgtcttccc cttttactca tagtcaggac ccagaaactt caacggccta caagactcta 60
227 caccagtggc ccccaacctt ttggcacca gggaccagtt ttgtggaaga caattttccc 120
229 actgactggg gaggtggggg gggggctgtg tgggggtgtg agatggg 167
232 <210> SEQ ID NO: 14
233 <211> LENGTH: 162
234 <212> TYPE: DNA
235 <213> ORGANISM: Homo sapiens
237 <400> SEQUENCE: 14
238 atggaatttt acaggtctga catcttgaca gaggtatatt gtaaaataag atactctctc 60

```

RAW SEQUENCE LISTING

DATE: 09/18/2006

PATENT APPLICATION: US/10/591,451

TIME: 15:48:54

Input Set : E:\89403834.txt

Output Set: N:\CRF4\09182006\J591451.raw

```

240 cgggaaaaga gaaggcagtt tagaggacag gtagagagga agtatacaga taagggtgtgc 120
242 aggtctgctc agggttccga agcagtttcc tggaaaactt ga 162
245 <210> SEQ ID NO: 15
246 <211> LENGTH: 225
247 <212> TYPE: DNA
248 <213> ORGANISM: Homo sapiens
250 <400> SEQUENCE: 15
251 atgctgtttt tcccttctca ttccatcttg acattgtcta ttttgagatc tcagctcagt 60
253 tgcagagaag ctgccttccc catctggcaa cccattatat gtgtcatagt accatgttgt 120
255 accatagagc tagacacagg tgccatgttg tgtcttgaaa tgtattcacc agcttccaaa 180
257 ggtttacctc aatccccttt actcaagaag cctcagttct actga 225
260 <210> SEQ ID NO: 16
261 <211> LENGTH: 162
262 <212> TYPE: DNA
263 <213> ORGANISM: Homo sapiens
265 <400> SEQUENCE: 16
266 atgctagatg ttagggataa atggttaaca ggacacagtt cttgcttata ttgctatgg 60
268 ctgtcaagcc ttatacaatc tagccttata tctctcaccg tcttatcttt atcacccgta 120
270 gattcccttg ttgggaactg gtttctttca gtccttaatt ag 162
273 <210> SEQ ID NO: 17
274 <211> LENGTH: 306
275 <212> TYPE: DNA
276 <213> ORGANISM: Homo sapiens
278 <400> SEQUENCE: 17
279 atgtttgttg tctgtggtat gttttgttac tgtggcccaa gctgttggac acagggacac 60
281 ccctgggctc ccaggcacca cccttccctc acgctgctgc tctcctggaa cacggtcgtg 120
283 cctcactgcc catccaaagc cacatcccg ctcacactgc tcactccttg tttcttccac 180
285 tcgatggatc aatttttctc ttaccaagaa gctggccagg tgcatgggt cacacctgta 240
287 atcccagcac tttgggaggc tgaaacaggc agatcatttg aggtcaggag ttcgagacca 300
289 gcctga 306
292 <210> SEQ ID NO: 18
293 <211> LENGTH: 198
294 <212> TYPE: DNA
295 <213> ORGANISM: Homo sapiens
297 <400> SEQUENCE: 18
298 atgacagttt caagagcacc ccacgtactt gacccccgct gggcagaagc taccaaagga 60
300 gaccccgca gggtaaggga aggggtgctg cagggcccg ctagaccctg caggatgctc 120
302 agggccagg cccaccctc tactggccct tctccctcag agttgtccat tgactggaca 180
304 aaccatcccc aatgctga 198
307 <210> SEQ ID NO: 19
308 <211> LENGTH: 207
309 <212> TYPE: DNA
310 <213> ORGANISM: Homo sapiens
312 <400> SEQUENCE: 19
313 atggagcctt tcagaagggc ccagccctgg gggatctacg acccttgggt cccttcaaga 60
315 aagctcagac agcgaaggaa gaaaaggga gggcagccta tgagagagag aaggcagaga 120
317 aaaaggaaag gagatgggag gaaagggaac gccttcttta gaactcagga aaaacaacat 180
319 cagaagtggg catttctccc tgtataa 207
322 <210> SEQ ID NO: 20

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/591,451

DATE: 09/18/2006

TIME: 15:48:54

Input Set : E:\89403834.txt

Output Set: N:\CRF4\09182006\J591451.raw

```

323 <211> LENGTH: 201
324 <212> TYPE: DNA
325 <213> ORGANISM: Homo sapiens
327 <400> SEQUENCE: 20
328 atgcaattat caaacaacc cagtcaacca ggattgaaag tgtcaaacag tgcaacaatc      60
330 aaggccattc tttgtcatga tcaagagcac agagcctgga gtcagactga caaagggttg      120
332 agattgatga aagattgtca ggtgactttt tgggtctctcc tacatagtct ggaaatcaga      180
334 atttggagct ttaaacttta a                                     201
337 <210> SEQ ID NO: 21
338 <211> LENGTH: 195
339 <212> TYPE: DNA
340 <213> ORGANISM: Homo sapiens
342 <400> SEQUENCE: 21
343 atgcctgggc agcgtggtcc agcccctgcc tcgggggtgga aaggcagaga gcaaagagga      60
345 ggcccctctt attccggacc ccagaggccag agcccaggag tgggaaagca gaggggcaaag      120
347 aggaggcccc tcctctcatc cctgaccccc aggccagagc ctaagggttca agtgcctcag      180
349 gccagtccc cttga                                           195
352 <210> SEQ ID NO: 22
353 <211> LENGTH: 192
354 <212> TYPE: DNA
355 <213> ORGANISM: Homo sapiens
357 <400> SEQUENCE: 22
358 atgagcacac tgagctctgc agggcctcag ctggaaggcg ccatccaatc gtccttcccc      60
360 tcccagcag aactccagag gtggggcggc tgccgcaggg cccaaggctg cctcggcagg      120
362 gggctttgtg cttttgtgtg tggaggccac cagggtattca ggaagatcct gaatgggttg      180
364 tcaattgact ga                                           192
367 <210> SEQ ID NO: 23
368 <211> LENGTH: 399
369 <212> TYPE: DNA
370 <213> ORGANISM: Homo sapiens
372 <400> SEQUENCE: 23
373 atgacaatac cccgtctctg gtatctttgc acttgctctt tcaaagccac cttttccttt      60
375 ctctctctct ggactgtcac agatcctcct ctgtaccca agaacacccc attggatttc      120
377 cgggctggct gcttggccta cacacctggg tcaggcctct cgcagggatg cgctgccac      180
379 tgtaataaag aggagaaaac gtcacacggg aaaggcctga ctcttcgta caatcagaat      240
381 actcaactgc acagagaagg gaccccttta agccactttg ggagccacat ccaccactct      300
383 gtgactccca cacaggctgg ttcccaggta tcagggtgcc tagtggttaac acggggccaaa      360
385 aggacaaaac aggaccctag gtccttccca aaacattag                                           399
388 <210> SEQ ID NO: 24
389 <211> LENGTH: 225
390 <212> TYPE: DNA
391 <213> ORGANISM: Homo sapiens
393 <400> SEQUENCE: 24
394 atgtgcattt ctctgctgag attccacatg tattcattca ttatgagaat tttttttctt      60
396 caccatga ctatagtttt aatagctgct ctcaaatact tgactgctga taacaacatc      120
398 ttggacattt tggggatagc ttttaatgcc tatgttttat cttgtgtatg gataacattt      180
400 ttgtgtttct tctcatgtct cttaaatatt aaaattgtat tttaa                                           225
403 <210> SEQ ID NO: 25
404 <211> LENGTH: 183

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/591,451

DATE: 09/18/2006
TIME: 15:48:55

Input Set : E:\89403834.txt
Output Set: N:\CRF4\09182006\J591451.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:422; N Pos. 697

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/591,451

DATE: 09/18/2006

TIME: 15:48:55

Input Set : E:\89403834.txt

Output Set: N:\CRF4\09182006\J591451.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:12197 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:422 after pos.:660

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☒ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☒ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.